

MER Shift Reports

STS-107

Day 10 Shift 1

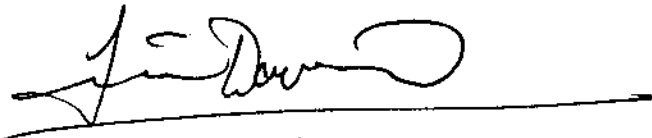
Thermal

STS-107 MER TCS Thermal 1st Shift Report

January ²⁵~~24~~, 2003 11:30AM, ²⁵~~24~~ 17:30 GMT

9/01:51 MET

All thermal systems are performing nominally and all subsystem temperatures are within acceptable limits.



TIM DAVIES / DAVE NORMAN

STS-107 (OV-102 FLT 28)

~~1/24/03~~ 1/25/03

~~8:00 AM~~ 11:30 AM

On-Orbit Shift Report

The HYD/WSB Systems are operating nominally and all parameters are within their expected ranges. There have been no additional circulation pump runs for thermal conditioning or bootstrap re-pressurization. The HYD/WSB group is not working any issues at this time.

Total Circ Pump Runs

Thermal	Accumulator Recharges
Sys 1: 1 for elevon Park	0
Sys 2: 0 runs	0
Sys 3: 0 runs	0

Jeffery S. Goza

HYD/WSB SSE

Arionico
FLT Control / GNC Daily Rept

STS 107

FLIGHT DAY 9

FCS & GNC systems ARE
PERFORMING NOMINALLY

Chuck Beatty

Jan 25, 2003

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 11

SHIFT 1

All ECLSS systems performing nominally.

Consumables:	Supply water	496.4 lb.
	Waste water	57.5 lb.
	Orbiter Nitrogen	188.5 lb.

Shift Leader
GMT 025/16:53

**MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT**

TO: MER MANAGER

SUBJECT: FD10; 2nd SHIFT REPORT

GMT: 025:17:00

EVENTS:

RED TEAM continuing with MEIDEX and SOFBALL Experiments.

INTERNET issues experienced across NASA. ODIN is currently handling the issue.

TS0016 PGSC Power Supply Temperature Check CHIT

-Contacted Dave Stephenson @09:20. Confirmed answers to following questions:

- When should PGSC Power Supply Temp. Check procedure be performed?
Before Power Down of STS-4 PGSC
- Any problems with MMACS/IFM creating procedure/flight note?
No problems.

-In coordination with MMACS and IFM regarding CHIT.

-IFM is working procedure for Flight Note and should have ready later during Shift 2.

FORWARD ACTIONS:

Monitor CHITs for activity.

CHITS (Monitoring / Working / Waiting for Closure):

TS0016 PGSC Power Supply Temperature Check

- Waiting for opening.
- IFM is writing procedure/flight note for CHIT.

TS0010 Assess Feasibility of Performing SPACEHAB IFM 8.2 Contingency Air Duct Configuration

- Monitoring CHIT activity; reviewed CHIT
- MER ECLSS (Comment 5) grey tape valve handle control into position. Mark setting with Sharpie pen for future reference.
- MER ECLSS also has **highly** recommended that sleep station vents full open and verify flow for sleeping, or headaches may result. Estimated reduction of airflow calculations at the sleep station vents is 18%, within acceptable levels.

STS0012 INFO ONLY – SpaceHab Water Inspection/Removal and Continuity Check

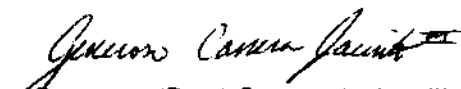
-CHIT has 2 hardcopy attachments for IFM procedures. These procedures are not scheduled to be performed at this time.

HARDWARE STATUS:

Two Hasselblad [70mm] anomaly reports have been opened. **MMACS 001A** and **MMACS 002B**. Dena Haynes (x45122) has been informed of this hardware issue. Both have reported similar issues regarding Motor Drive Jamming.

- MMACS 001A refers to S/N 1036. This unit can still be used in manual mode. Troubleshooting provided No Joy.
- MMACS 002B refers to S/N 1012. After replacing motor drive batteries a second time, problem was cleared.

There have been no further FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally.


Generoso (Bum) Carrera Jacinto III
Flight Crew Equipment- GFE/CFE

STS-107

MER COMM & TRACK SHIFT REPORT

GMT 025:16:30

SHIFT 1

ALL COMM & TRACK SYSTEMS ARE
OPERATING NOMINALLY.

MARTY O'HARE

MER COMM & TRACK

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 10 SHIFT 1
GMT 025/17:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics) continue to function satisfactorily with the following notes or exceptions:

FC/PRSD – The water relief and water line heaters were switched from the A system to the B system at 024/13:29 GMT (07/21:50 MET).

The fuel cell 1 & 3 alternate water line temperatures continue to be erratic, indicating slight leakage of warm fuel cell water through the check valves.

OMS/RCS – Now in LOMS interconnect, B regs, B heaters. Interconnect usage is currently at 1.367 % out of the left side.

EPDC - The 24-hour EPDC system plots were reviewed with no anomalous results with the exception of AC2 Phase, B. AC2 continues to show numerous instances of sluggish response relative to phases A & C during both transient and steady state conditions.

Walter Scott
ESD Team Lead

MER Shift Reports

STS-107

Day 10 Shift 2

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 11

SHIFT 2

All ECLSS systems performing nominally.

Events:

MET 09/05:26 Morning GIRA configuration.

Consumables:	Supply water	583.0 lb.
	Waste water	79.2 lb.
	Orbiter Nitrogen	184.1 lb.

Shift Leader
GMT 026/00:41

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 10 SHIFT 2
GMT 026/00:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics) continue to function satisfactorily with the following notes or exceptions:

OMS/RCS

1. Left OMS GN2 Accumulator pressure is holding.
2. OMS and RCS system data has been reviewed up through 025/17:00 GMT. System performance continues as expected with no anomalies noted.
3. All vernier jet firing through 025/21:39:00.000 GMT have been reviewed. There have been no anomalous pulses.
4. 23 of 38 primary thrusters have been fired. No new primary thrusters have been fired since the previous report.

APU - All APU subsystem parameters are functioning nominally during on-orbit operations. Heaters are functioning on the 'B' circuit.

Tom Davies
ESD Team Lead

STS-107

OMS/RCS Day 10 Shift 2 Report

INITIATOR: Garza
DATE: January 25, 2003

MET: 09/07:25
GMT: 025/23:05
CENTRAL TIME: 5:05 PM CST

	Left		Right		Forward	
	Oxidizer	Fuel	Oxidizer	Fuel	Oxidizer	Fuel
PFS %	70.6	70.8	68.4	68.4	53.4	50.2
Interconnect Usage	1.675		3.991			

ORBIT

1. Left OMS GN2 Accumulator pressure is holding.

Data Review

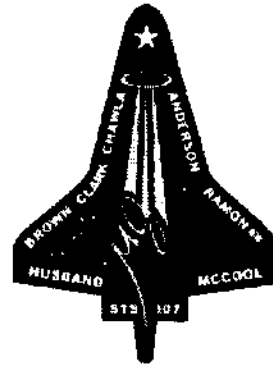
1. OMS and RCS system data has been reviewed up through 025/17:00 GMT. System performance continues as expected with no anomalies noted.
2. All vernier jet firing through 025/21:39:00.000 GMT have been reviewed. There have been no anomalous pulses.

RCS PRESSURIZATION LEG FRCS: B LRCS: B RRCS: B

AFT RCS INTERCONNECT CONFIGURATION: Left OMS Interconnect

23 of 38 primary thrusters have been fired. No new primary thrusters have been fired since the previous report:

F1F		L1A	X	R1A	X
F2F		L3A	X	R3A	X
F3F		L1L		R1R	
F1L		L2L		R2R	
F3L	X	L3L	X	R3R	X
F2R		L4L		R4R	
F4R	X	L1U	X	R1U	X
F1D	X	L2U		R2U	
F2D	X	L4U		R4U	
F3D	X	L2D	X	R2D	X
F4D	X	L3D	X	R3D	X
F1U	X	L4D	X	R4D	X
F2U	X				
F3U	X				



DPS PASS FSW, MEDS & H/W MER Shift Report

STS-107

Date: 1/25/2003

GMT: 026/01:00:00

Shift: 2nd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Michael Banks

Signature: Michael J. Banks

MER Shuttle Safety Console
STS-107 FD 10 Shift 1
GMT 025:17:00

The MER Safety Console is not working any safety of flight issues.

Jim Pendergast

**MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT**

TO: MER MANAGER

SUBJECT: FD10; 3rd SHIFT REPORT

GMT: 026:01:00

EVENTS:

BLUE TEAM up and continuing with Experiments.
INTERNET issues have been resolved across JSC.

TS0016 PGSC Power Supply Temperature Check CHIT

- Dave Stephenson was contacted @ 09:20 this morning. Confirmed answers to following questions:
 - When should PGSC Power Supply Temp. Check procedure be performed?
Before Power Down of STS-4 PGSC
 - Any problems with MMACS/IFM creating procedure/flight note?
No problems.
- In coordination with MMACS and IFM regarding CHIT.
- SSP Safety has approved/signed CHIT.
- IFM is working procedure for Flight Note and should have ready later during Shift 2.

FORWARD ACTIONS:

Monitor CHITs for activity.

CHITS (Monitoring / Working / Waiting for Closure):

TS0016 PGSC Power Supply Temperature Check

- Waiting for opening.
- IFM is writing procedure/flight note for CHIT.

STS0010 Assess Feasibility of Performing SPACEHAB IFM 8.2 Contingency Air Duct Configuration

- Monitoring CHIT activity; reviewed CHIT
- MER ECLSS (Comment 5) gray tape valve handle control into position. Mark setting with Sharpie pen for future reference.
- MER ECLSS also has **highly** recommended that sleep station vents full open and verify flow for sleeping, or headaches may result. Estimated reduction of airflow calculations at the sleep station vents is 18%, within acceptable levels.

STS0012 INFO ONLY – SpaceHab Water Inspection/Removal and Continuity Check

-CHIT has 2 hardcopy attachments for IFM procedures. These procedures are not scheduled to be performed at this time.

HARDWARE STATUS:

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- MMACS 001A refers to S/N 1036. This unit can still be used in manual mode. Troubleshooting provided No Joy.
- MMACS 002B refers to S/N 1012. After replacing motor drive batteries a second time, problem was cleared.

There have been no further FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally.



Rob Rowland
Flight Crew Equipment- GFE/CFE



STS-107 MER Thermal 2nd Shift Report

026/01:00 GMT, 19:00 CST 01/25/2003

All thermal systems are performing nominally and all temperatures are within acceptable limits.

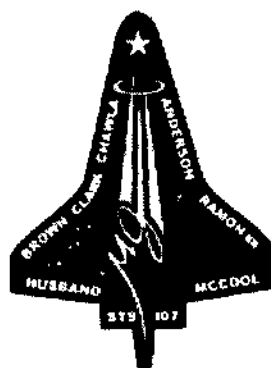
We are currently working on the EOM thermal conditioning plan. EECOM has released Flight note EEFN 223 which includes our recommendations for the attitude timeline for the remainder of the flight. The changes explained in the flight note will be incorporated into the next Pointing attitude timeline release.

Bill Andrews/John Tran

MER Shift Reports

STS-107

Day 10 Shift 3



DPS PASS FSW, MEDS & H/W MER Shift Report

STS-107

Date: 1/26/2003

GMT: 026/09:00:00

Shift: 3rd

SYSTEM STATUS / ISSUES BEING WORKED

- All DPS systems performing nominally.

DPS Team Lead: Susan Brooker

Signature: Susan Brooker

**MER FLIGHT CREW EQUIPMENT- GFE/CFE
STS-107 SHIFT REPORT**

TO: MER MANAGER

SUBJECT: FD11; 1st SHIFT REPORT

GMT: 026:09:00

EVENTS:

Water loop flow has been adjusted and orbiter and SpaceHab temps have been reduced.
Red Team awake.

FORWARD ACTIONS:

Monitor CHITs for activity.

CHITS (Monitoring / Working / Waiting for Closure):

STS0013 PGSC Power Supply Temperature Check CHIT (was TS0016)

- Dave Stephenson was contacted @ 09:20 this morning. Confirmed answers to following questions:
 - When should PGSC Power Supply Temp. Check procedure be performed?
Before Power Down of STS-4 PGSC
 - Any problems with MMACS/IFM creating procedure/flight note?
No problems.
- In coordination with MMACS and IFM regarding CHIT.
- SSP Safety has approved/signed CHIT.

STS0010 Assess Feasibility of Performing SPACEHAB IFM 8.2 Contingency Air Duct Configuration

- Monitoring CHIT activity; reviewed CHIT
- MER ECLSS (Comment 5) gray tape valve handle control into position. Mark setting with Sharpie pen for future reference.
- MER ECLSS also has **highly** recommended that sleep station vents full open and verify flow for sleeping, or headaches may result. Estimated reduction of airflow calculations at the sleep station vents is 18%, within acceptable levels.

>>>THIS CHIT IS CLOSED<<<

STS0012 INFO ONLY – SpaceHab Water Inspection/Removal and Continuity Check

- CHIT has 2 hardcopy attachments for IFM procedures. These procedures are not scheduled to be performed at this time.

>>>THIS CHIT IS CLOSED<<<

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There have been no further FCE anomalies recorded this reporting period. It is assumed all FCE is performing nominally.


Gerard Szymozak
Flight Crew Equipment- GFE/CFE



Thermal 3rd Shift Report

STS-107, January 26, 2003
3 AM, MET 09/17:21 (26/09:00 GMT)

All temperatures are within acceptable limits and all thermal systems are operating nominally.

MOD Pointing incorporated attitudes for main landing gear tire thermal conditioning. Although TCS had recommended four periods of -ZLV+YVV, Pointing changed two periods in the timeline from -ZLV-XVV to -ZLV+YVV: 12/22:40 MET for ~19 hrs and 13/23:15 MET for ~16 hrs. Also, the last 15 hrs prior to deorbit prep now include 7.5 hours of bottom sun followed by 7.5 hours of -ZLV+YVV with a 40° roll. TCS will monitor the main landing gear tire temperatures during the 23 hour long period of -ZLV-XVV scheduled at 10/15:23 MET and may recommend a period of -ZLV+YVV at 12/00:15 MET for ~16 hrs.

Diana Coronado

ORBITER ECLSS

STS-107 ECLSS SHIFT REPORT

FLIGHT DAY 11

SHIFT 3

All ECLSS systems performing nominally.

Events:

MET 09/11:04 SIMO DUMP INITIATED
MET 09/12:16 SIMO DUMP COMPLETED

Consumables: Supply water 479.4 lb.
 Waste water 19.7 lb.
 Orbiter Nitrogen 178.5 lb.

Shift Leader
GMT 026/08:52

STS-107 ESD SYSTEMS SHIFT REPORT
DAY 10 SHIFT 3
GMT 026/09:00

Energy Division Subsystems (MPS, RCS, OMS, FC/PRSD, APU, and Hydraulics)
continue to function satisfactorily with the following notes or exceptions:

Richard Phillips
ESD Team Lead

MER Shuttle Safety Console
STS-107 FD 10 Shift 3
GMT 026:08:40

The MER Safety Console is not working any safety of flight issues.

Michael Etchells